SUBWOOFER SYSTEM

KSC-WA80/WA100

SERVICE MANUAL

KENWOOD

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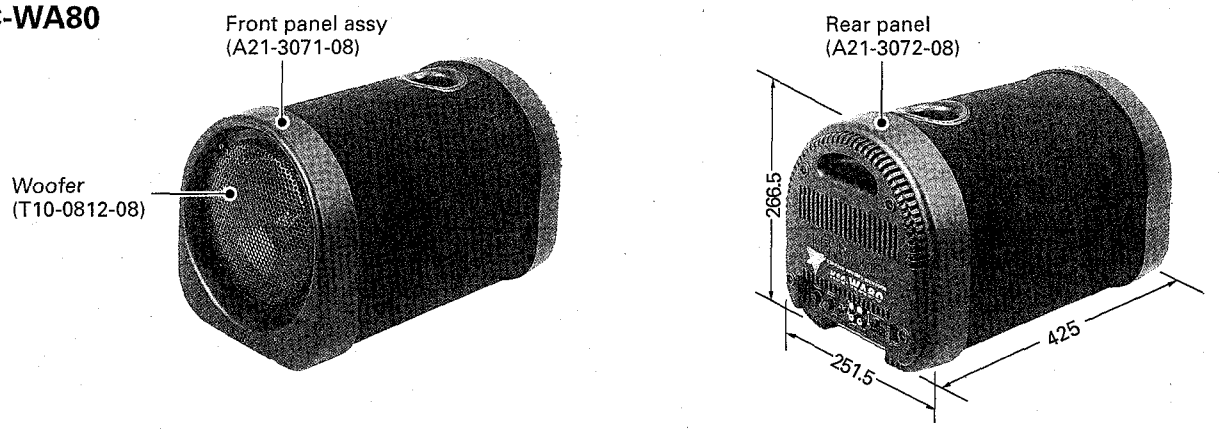
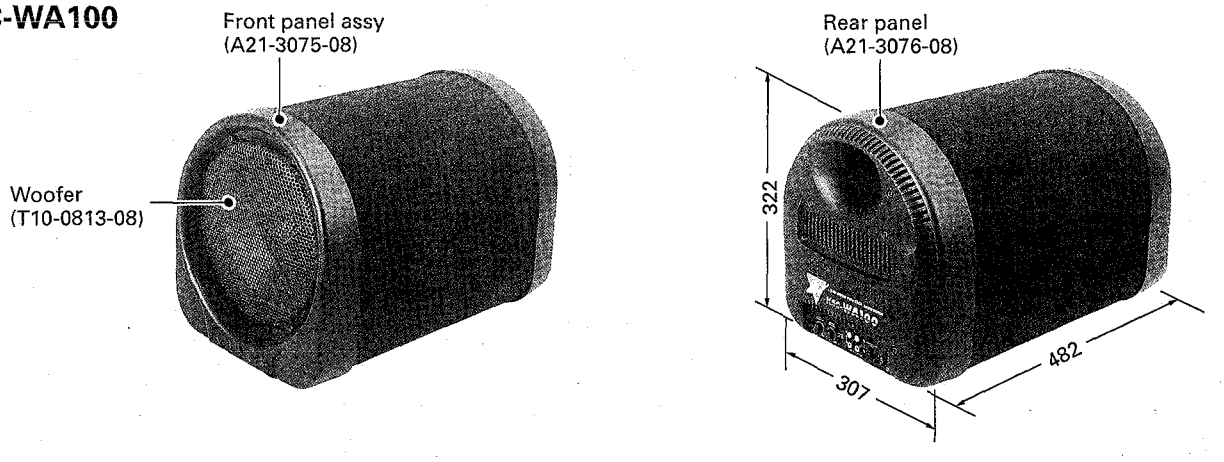
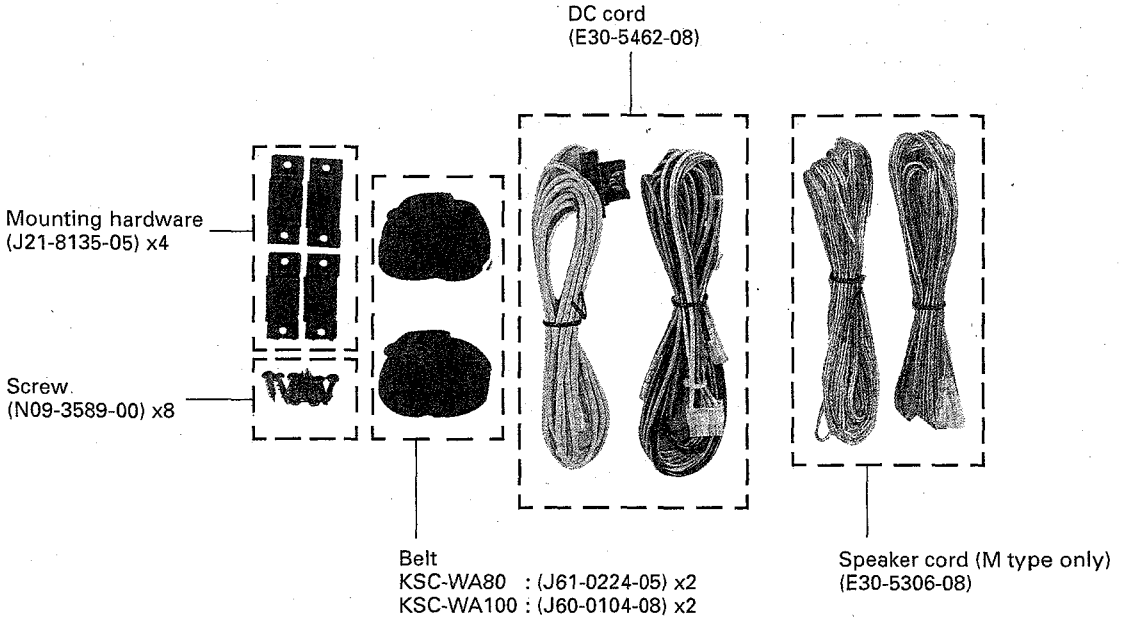
KSC-WA80



KSC-WA100





KSC-WA80/WA100

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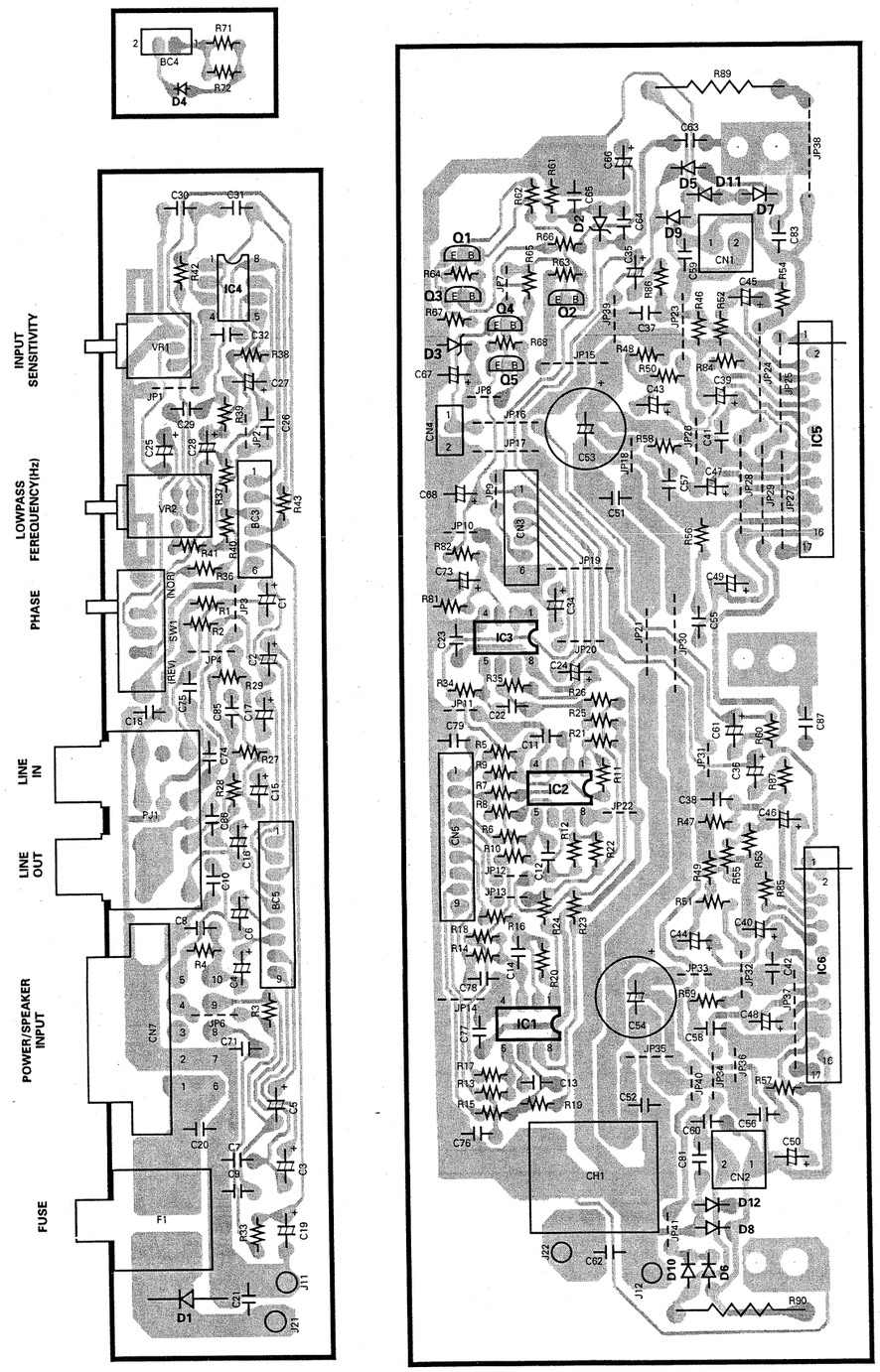
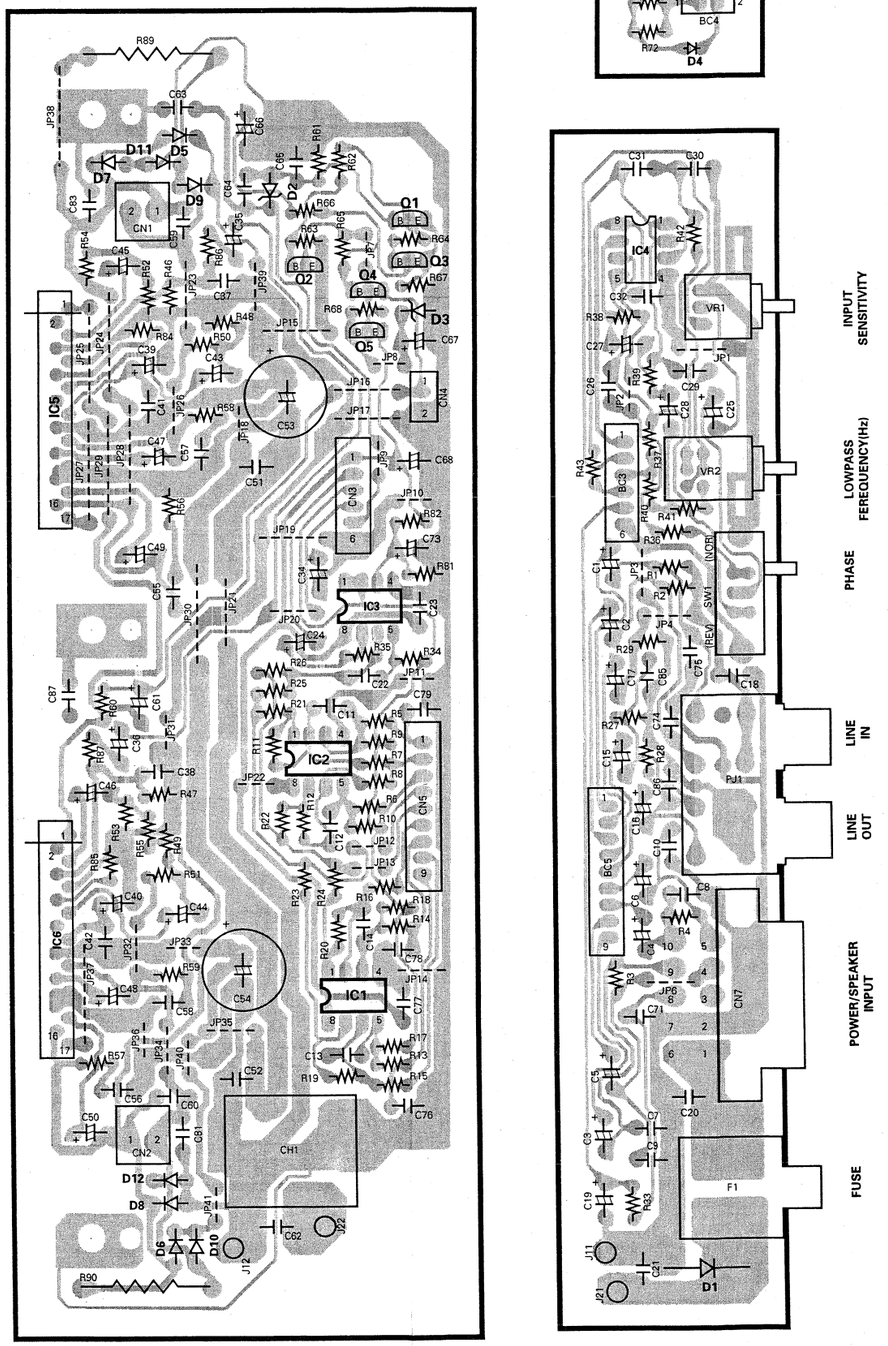
PC BOARD (COMPONENT SIDE VIEW)



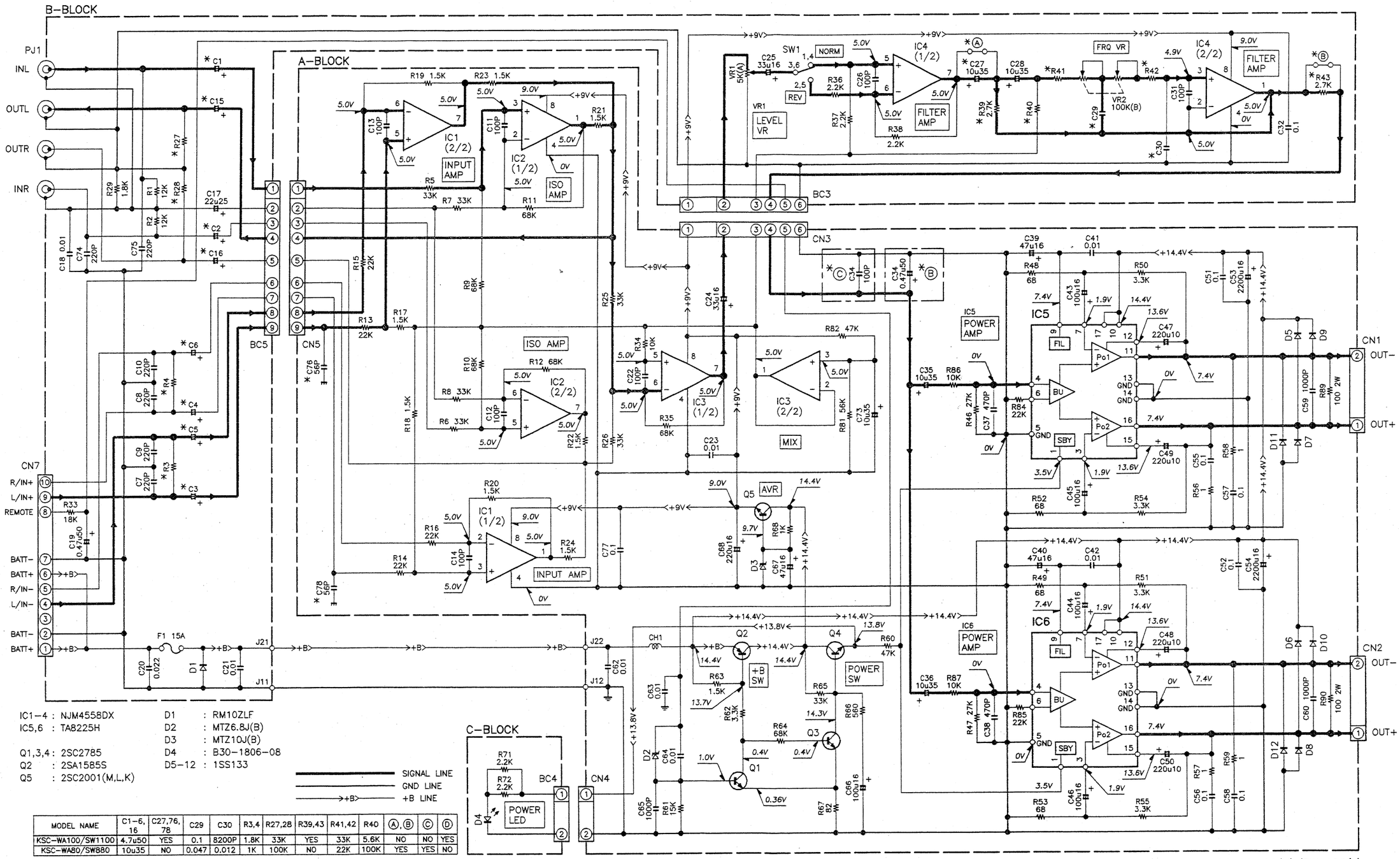
IC	Q	Address
1		6C
2		5C
3		4C
4		2B
5		3D
6		5D
	1	2C
	2	3C
	3	3C
	4	3C
	5	3C

PC BOARD (FOIL SIDE VIEW)



IC	Q	Address
1		6H
2		5H
3		4H
4		2I
5		3G
6		5G
	1	2H
	2	3H
	3	3H
	4	3H
	5	3H

Refer to the schematic diagram for the values of resistors and capacitors.



IC1-4 : NJM4558DX
IC5,6 : TA8225H

Q1,3,4 : 2SC2785
Q2 : 2SA1585S
Q5 : 2SC2001(M,L,K)

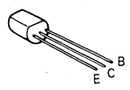
D1 : RM10ZLF
D2 : MTZ6.8J(B)
D3 : MTZ10J(B)
D4 : B30-1806-08
D5-12 : 1SS133

MODEL NAME	C1-6, 16	C27,76, 78	C29	C30	R3,4	R27,28	R39,43	R41,42	R40	Ⓐ,Ⓑ	Ⓒ	Ⓓ
KSC-WA100/SW1100	4.7u50	YES	0.1	8200P	1.8K	33K	YES	33K	5.6K	NO	NO	YES
KSC-WA80/SW880	10u35	NO	0.047	0.012	1K	100K	NO	22K	100K	YES	YES	NO

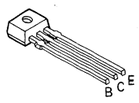
- DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

CAUTION : For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

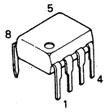
2SC2001



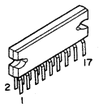
2SC2785



NJM4558DX



TA8225H



KSC-WA80/WA100

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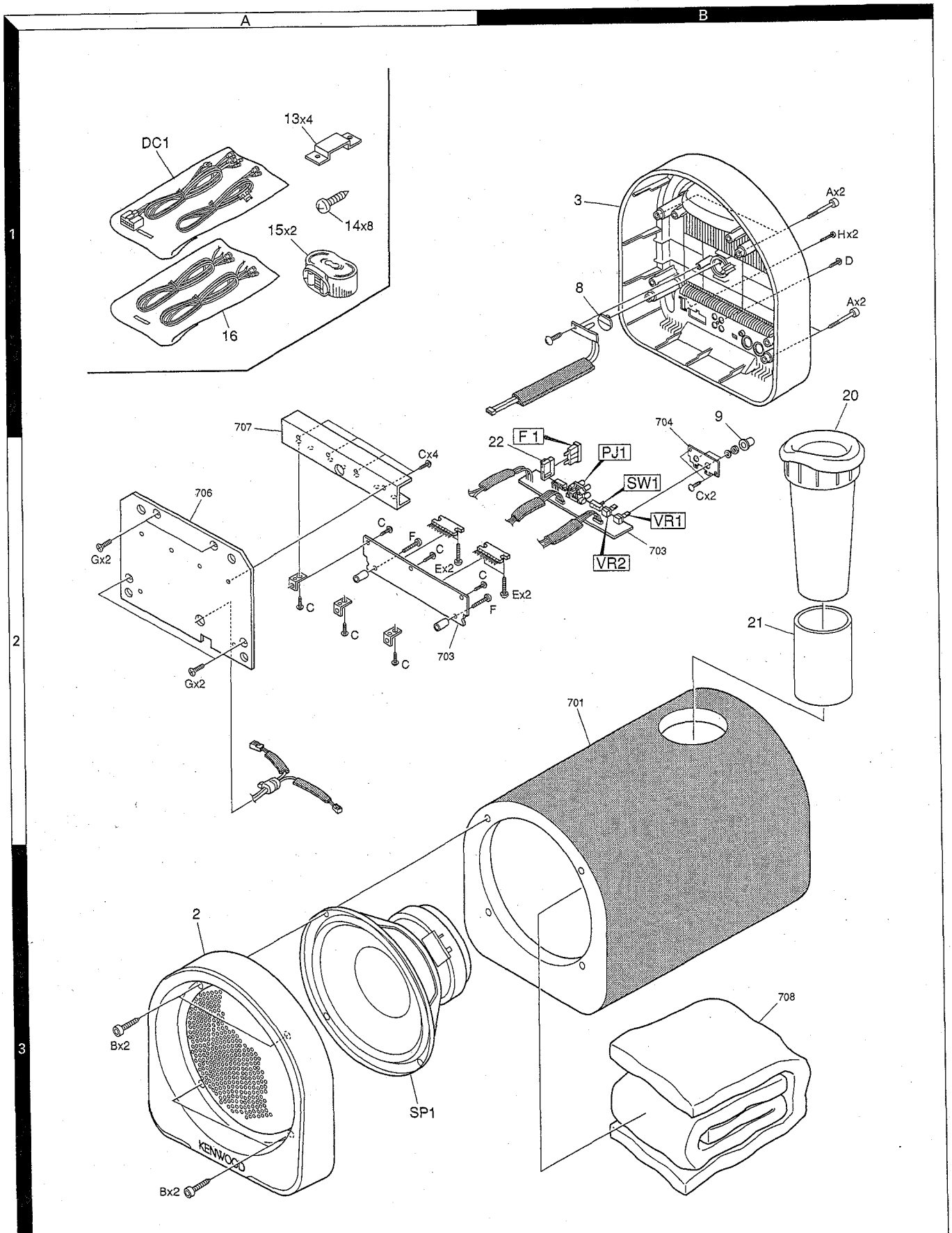
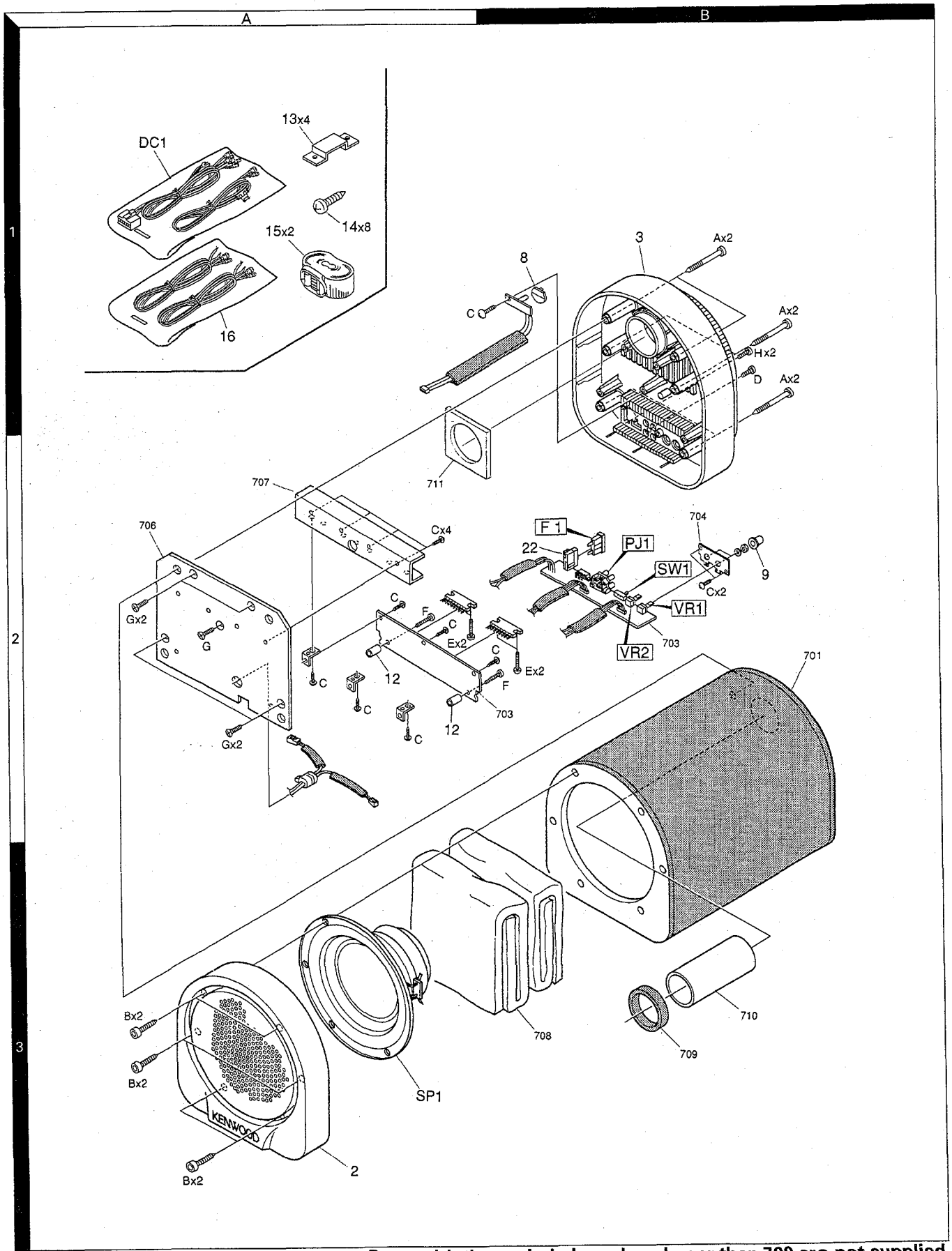
EXPLODED VIEW (KSC-WA80)



Parts with the exploded numbers larger than 700 are not supplied.

KSC-WA80/WA100

EXPLODED VIEW (KSC-WA100)



Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

*New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref.No.	Add	New	Parts No.	Description	Model
KSC-WA80					
2	3A		A21-3071-08	FRONT PANEL ASSY	80
3	1B	*	A21-3072-08	REAR PANEL	80
8	1B	*	B19-0886-14	LIGHTING BOARD	80
-		*	B46-0629-00	WARRANTY CARD	
-		*	B61-0929-00	INSTRUCTION MANUAL	
16	1A		E30-5306-08	SPEAKER CORD (M type only)	
DC1	1A		E30-5462-08	DC CORD	
-			H10-6055-05	POLYSTYRENE FOAMED FIXTURE	
-			H13-0751-08	PROTECTION BOARD	80
-			H21-1208-08	PROTECTION SHEET	80
-			H25-1068-08	PROTECTION BAG	80
-		*	H51-1062-08	ITEM CARTON CASE	80
13	1A		J21-8135-05	MOUNINTG HARDWARE	
15	1A		J61-0224-05	BELT	80
9	1B	*	K29-0575-08	KNOB	
14	1A		N09-3589-00	SCREW	
A	1B		N09-3637-08	SCREW	
B	3A		N09-3586-00	SCREW (4X32)	
D	1B		N89-3010-45	SCREW (3X10)	
H	1B		N89-2008-45	SCREW (2X8)	
20	1B		T99-0380-05	PIPE DUCT	80
21	2B		T99-0385-05	PIPE DUCT	80
SP1	3A		T10-0812-08	WOOFER	80
KSC-WA100					
2	3A		A21-3075-08	FRONT PANEL ASSY	100
3	1B		A21-3076-08	REAR PANEL	100
8	1B		B19-1261-08	LIGHTING BOARD	100
-		*	B46-0629-00	WARRANTY CARD	
-		*	B61-0929-00	INSTRUCTION MANUAL	
16	1A		E30-5306-08	SPEAKER CORD (M type only)	
DC1	1A		E30-5462-08	DC CORD	
12	2A		G11-0299-08	CUSHION	100
-			H10-6055-05	POLYSTYRENE FOAMED FIXTURE	
-			H13-0773-08	PROTECTION BOARD	100
-			H21-1215-08	PROTECTION SHEET	100
-			H25-1082-08	PROTECTION BAG	100
-		*	H51-1065-08	ITEM CARTON CASE	100
13	1A		J21-8135-05	MOUNINTG HARDWARE	
15	1A		J60-0104-08	BELT	100
9	2B	*	K29-0575-08	KNOB	
14	1A		N09-3589-00	SCREW (4X75)	
A	1B		N09-3637-08	SCREW	
B	3A		N09-3586-00	SCREW (4X32)	
D	1B		N89-3010-45	SCREW (3X10)	
H	1B		N89-2008-45	SCREW (2X8)	
SP1	3A		T10-0813-08	WOOFER	100

Ref.No.	Add	New	Parts No.	Description			Model
AMPLIFIER UNIT							
D4			B30-1806-08	LED			
C1 -6			CE04DW1H4R7M	ELECTRO	4.7UF	50WV	100
C1 -6			CE04DW1V100M	ELECTRO	10UF	35WV	80
C7 -10			CK45FB1H221K	CERAMIC	220PF	K	
C11 -14			CK45FB1H101K	CERAMIC	100PF	K	
C15 ,16			CE04DW1H4R7M	ELECTRO	4.7UF	50WV	100
C15 ,16			CE04DW1V100M	ELECTRO	10UF	35WV	80
C17			CE04DW1E220M	ELECTRO	22UF	25WV	
C18			CK45FF1H103Z	CERAMIC	0.010UF	Z	
C19			CE04DW1HR47M	ELECTRO	0.47UF	50WV	
C20			CF92V1H223J	MF-C	0.022UF	J	
C21			CF92V1H103J	MF-C	0.010UF	J	
C22			CK45FB1H101K	CERAMIC	100PF	K	
C23			CK45FF1H103Z	CERAMIC	0.010UF	Z	
C24 ,25			CE04DW1C330M	ELECTRO	33UF	16WV	
C26			CK45FB1H101K	CERAMIC	100PF	K	
C27 ,28			CE04DW1V100M	ELECTRO	10UF	35WV	100
C28			CE04DW1V100M	ELECTRO	10UF	35WV	80
C29			CF92V1H104J	MF-C	0.10UF	J	100
C29			CF92V1H473J	MF-C	0.047UF	J	80
C30			CF92V1H123J	MF-C	0.012UF	J	80
C30			CF92V1H822J	MF-C	8200PF	J	100
C31			CK45FB1H101K	CERAMIC	100PF	K	
C32			CK45FF1E104Z	CERAMIC	0.10UF	Z	
C34			CE04DW1HR47M	ELECTRO	0.47UF	50WV	100
C34			CK45FB1H101K	CERAMIC	100PF	K	80
C35 ,36			CE04DW1V100M	ELECTRO	10UF	35WV	
C37 ,38			CK45FB1H471K	CERAMIC	470PF	K	
C39 ,40			CE04DW1C470M	ELECTRO	47UF	16WV	
C41 ,42			CK45FF1H103Z	CERAMIC	0.010UF	Z	
C43 -46			CE04DW1C101M	ELECTRO	100UF	16WV	
C47 -50			CE04DW1A221M	ELECTRO	220UF	10WV	
C51 ,52			CF92V1H104J	MF-C	0.10UF	J	
C53 ,54			CE04DW1C222M	ELECTRO	2200UF	16WV	
C55 -58			CF92V1H104J	MF-C	0.10UF	J	
C59 ,60			CK45FB1H102K	CERAMIC	1000PF	K	
C62 -64			CK45FF1H103Z	CERAMIC	0.010UF	Z	
C65			CK45FB1H102K	CERAMIC	1000PF	K	
C66			CE04DW1C101M	ELECTRO	100UF	16WV	
C67			CE04DW1C470M	ELECTRO	47UF	16WV	
C68			CE04DW1C221M	ELECTRO	220UF	16WV	
C73			CE04DW1V100M	ELECTRO	10UF	35WV	
C74 ,75			CK45FB1H221K	CERAMIC	220PF	K	
C76			CC45FSL1H560J	CERAMIC	56PF	J	
C77			CK45FF1E104Z	CERAMIC	0.10UF	Z	
C78			CC45FSL1H560J	CERAMIC	56PF	J	
CN7			E08-1005-05	RECTANGULAR RECEPTACLE			
PJ1			E63-0206-08	PHONO JACK			
F1			F05-1537-05	FUSE (15A)			
22	2B		J13-0208-08	FUSE HOLDER			
CH1			L33-0401-08	CHOKE COIL			

80 : KSC-WA80
100 : KSC-WA100

⚠ indicates safety critical components.

KSC-WA80/WA100

PARTS LIST

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Ref.No.	Add	New	Parts No.	Description			Model
CH1			L33-0401-08	POS LABEL			
C	2A		N89-3008-45	SCREW (3X8)			
E	2A		N66-3012-45	SCREW (3X12)			
F	2A		N89-3018-46	SCREW (3X18)			
G	2A		N88-4014-46	SCREW (4X14)			
R9 -12			RN14BK2C1603F	RN 160K	F	1/6W	
VR1			R31-0407-08	VARIABLE RESISTOR			
VR2			R31-0402-08	VARIABLE RESISTOR			
SW1			S62-0206-08	SLIDE SWITCH			
D1			RM10ZLF	DIODE			
D2			MTZ6.8J(B)	ZENER DIODE			
D3			MTZ10J(B)	ZENER DIODE			
D5 -12			1SS133	DIODE			
IC1 -4			NJM4558DX	MEMORY IC			
IC5 ,6			TA8225H	ANALOGUE IC			
Q1			2SC2785	TRANSISTOR			
Q2		*	2SA1585S	TRANSISTOR			
Q3 ,4			2SC2785	TRANSISTOR			
Q5			2SC2001(M,L,K)	TRANSISTOR			

Ref.No.	Add	New	Parts No.	Description	Model

80 : KSC-WA80
100 : KSC-WA100

⚠ indicates safety critical components.

KSC-WA80/WA100

SPECIFICATIONS

AUDIO UNIT

MAX. POWER OUTPUT	100 (50+50) W
RATED. POWER OUTPUT	60 (30+30) W
FREQUENCY RESPONSE	
KSC-WA80	20-300 Hz
KSC-WA100	18-200 Hz
SIGNAL TO NOISE RATIO	85 dB
TOTAL HARMONIC DISTORTION	≦0.15 %
SENSITIVITY/INPUT IMPEDANCE	
KSC-WA80 RCA	32 mV
HIGH	900 mV
KSC-WA100 RCA	37 mV
HIGH	1000 mV
LOW PASS FILTER FREQUENCY	
KSC-WA80	80-300 Hz
KSC-WA100	50-200 Hz

POWER SUPPLY UNIT

OPERATING VOLTAGE	14.4 V
CURRENT CONSUMPTION (MAX)	12 A

UNIT DESIGN

SYSTEM	SUB WOOFER SYSTEM
ENCLOSURE	BASS REFREX TYPE
MOUNTED SPEAKER	
Woofer Diaphragm	Pearl Mica Cone (Dual Voice coil)Type
KSC-WA80	200 mm (8 in.)
KSC-WA100	250 mm (10 in.)
Surround	Urethane
Basket	Steel(Yellow)
Magnet KSC-WA80	ϕ 110-t17 mm Ferrite
KSC-WA100	ϕ 120-t17 mm Ferrite

DIMENSION

KSC-WA80	
Width	251.5 mm (9-7/8 in.)
Height	266.5 mm (10-1/2 in.)
Depth	425 mm (16-3/4 in.)
KSC-WA100	
Width	307 mm (12-1/16 in.)
Height	322 mm (12-11/16 in.)
Depth	482 mm (19 in.)

WEIGHT

KSC-WA80	
Net Weight(pc.) With Grille	6.8 Kg 15.0 lb.
Gross Weight	8.3 Kg 18.3 lb.
Weight of Magnet(Woofer)	568 g 20 OZ
KSC-WA100	
Net Weight(pc.) With Grille	8.3 Kg 18.3 lb.
Gross Weight	10.1 Kg 22.3 lb.
Weight of Magnet(Woofer)	705 g 24.8 OZ

SPEAKER(ELECTRICAL)

NOMINAL IMPEDANCE	2+2 Ω
POWER HANDLING	
Peak Input Power	100+100 W
Maximum Input Power	40+40 W
Rated Input Power	34+34 W
FREQUENCY RESPONSE	
KSC-WA80	20-1000 Hz
KSC-WA100	18-1000 Hz

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